

Procedure: <i>Risks Checklist – Software</i>	
Issue Date: May 5, 2000	Procedure ID: S-PE-152
Supersedes: April 4, 2000	Rev/Change 2.0

1. Purpose: To identify potential risks for projects involving software.

2. Creating Procedures:

P-PE-150 - Identify Risks

P-PE-010 - Define the Approach

3. Contents:

This is a checklist of potential risks that apply to all projects that involve software development. This checklist is intended to prompt the developers to consider items in areas of risks that they might otherwise overlook.

4. Format:

Following Page

5. Notes: N/A

**Risks Checklist - Software
(and suggested solutions)**

Project ID: _____
Prepared By: _____
Date: _____

- ___ Are the module interfaces with hardware being developed concurrently with the software?
? ?Implement the module early so that it may be tested with the hardware during development. Simulate or emulate the hardware to verify understanding of interface and behavior.
- ___ Does the module have a software interface with an external organization?
? ?Make early assignment of technical interface responsibility.
- ___ Does the development of other modules depend on the availability of the module being evaluated?
? ?Implement the module early.
- ___ Are the algorithms needed to implement the software well understood?
? ?Begin algorithm development and/or testing early. Some prototyping is advisable.
- ___ Do the required algorithms contain a structure which requires looping or searching?
? ?Investigate the execution time of the algorithm. Prototype if appropriate.
- ___ Do the required algorithms have accuracy or numeric convergence considerations?
? ?Investigate the numeric performance of the module. Prototype if appropriate.
- ___ Are the memory requirements large relative to the available memory?
? ?Investigate memory usage and hardware growth potential.
- ___ Does the software make heavy demands on I/O (disks ports, channels) and/or processing resources?
? ?Investigate resource usage and hardware growth potential.
- ___ Are there stringent constraints on the response time?
? ?Investigate the execution timing of the module. Prototype if appropriate.